

draft-happel-structured-email-trust-00

IETF 119

Status

- Scope: Security and trust considerations for processing structured email
 - I.e., mainly addressing any sort of recipient-side MUA!?
- Updates since IETF 118
 - None
 - Draft update in progress

Status quo

- How is structured email currently processed?
- Large ISPs (Gmail, Yahoo, 1&1, ...)
 - Manual sender approval / white listing
 - Require DKIM/SPF/...
- Open source tools
 - KMail and Nextcloud: no restrictions
 - Roundcube plugin: reusing “trusted sender” (special address book) feature used for remote images
- M3AAWG BCP forthcoming

Types of security concerns

- Formal representation of data (beyond human-readable text)
 - Privacy issue: data easier to analyze in storage / transit
 - Probably comparable to structured MIME attachments (flight tickets, barcodes)
- Possible divergence between structured and human-readable data
 - Same issue, e.g., exists already for text/plain / text/html inside multipart/alternative
- Automated processing
 - Structured email may afford MUAs to offer automated actions (similar to Sieve filter rules)
- External references
 - Similar to external images referenced in HTML email
- More types?

Mechanisms

- Content encryption
 - Full message?
 - Structured data only?
- Trust
 - Trusted senders (e.g., address book)
 - Sender signatures (e.g., PGP, SMIME)
 - Domain signatures (e.g., DKIM)
 - Transaction identifiers

Differentiate by use cases?

- “Neutral” structured data
 - E.g., shared news article
- Structured data with personal information
 - E.g., flight reservation

Implementation guidelines

- Processing structured data
 - Only if the sender is trusted
 - Otherwise: fall back to text/html or text/plain
- Inlining data (e.g. images)
 - Avoids privacy issues on receiver side

Next steps

- Further co-authors?
- Request WG adoption
- Reference implementation
 - Plugin for Roundcube Webmail
 - Currently re-using “trusted sender” (in address book) feature for remote images

My NYT lemony shrimp recipe



From NYT Cooking on 2023-10-24 01:00

 Details  Headers  Plain text



To protect your privacy remote resources have been blocked.

[Allow](#)



This message contains structured email data.

[Allow structured email content and ...](#)

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